What is claimed is:

1. A method of providing weighted grammars for speech recognition in a vehicle navigation system, the method comprising:

receiving grammar for speech recognition, the grammar including a plurality of tokens;

receiving geographical information corresponding to the tokens; and

calculating weights corresponding to the tokens based upon the geographical information.

2. The method of claim 1, wherein the geographical information includes sizes of locations corresponding to the tokens and each of the weights associated with each token is affected by the location corresponding to each token.

3. The method of claim 1, wherein the geographical information includes populations of locations corresponding to the tokens and each of the weights associated with each token is affected by the population of the location corresponding to each token.

4. The method of claim 1, wherein the geographical information includes popularity of locations corresponding to the tokens and each of the weights associated with each token is affected by the popularity of the location corresponding to each token.

5. The method of claim 1, further comprising:

receiving location information indicating the location of a vehicle for which the vehicle navigation system is used, the weights being

calculated based upon the location information as well as the geographical information.

6. The method of claim 5, wherein the geographical information includes distances between the vehicle location and the locations corresponding to the tokens and each of the weights associated with each token is affected by the corresponding distances.

7. The method of claim 5, wherein the geographical information includes distances between the vehicle location and locations corresponding to the tokens and the size of the locations corresponding to the tokens, and the weight (W) associated with each of the tokens is calculated by:

$$W = SG / (Dcg + C),$$

where SG is the size of the location corresponding to the token, Dcg is the distance from the vehicle location to the location corresponding to the token, and C is a predetermined constant.

8. The method of claim 5, wherein the geographical information includes distances between the vehicle location and locations corresponding to the tokens and the population of the locations corresponding to the tokens, and the weight (W) associated with each of the tokens is calculated by:

$$W = PG / (Dcg + C),$$

where PG is the population of the location corresponding to the token, Dcg is the distance from the vehicle location to the location corresponding to the token, and C is a predetermined constant.

9. The method of claim 5, wherein the geographical information includes distances between the vehicle location and locations corresponding to the tokens and the size and population of the locations corresponding to the tokens, and the weight (W) associated with each of the tokens is calculated by:

$$W = (SG + PG) / (Dcg + C),$$

where SG is the size of the location corresponding to the token, PG is the population of the location corresponding to the token, Dcg is the distance from the vehicle location to the location corresponding to the token, and C is a predetermined constant.

10. The method of claim 5, wherein the geographical information includes distances between the vehicle location and locations corresponding to the tokens and the size, population, and the popularity indices of the locations corresponding to the tokens, and the weight (W) associated with each of the tokens is calculated by:

$$W = (SG + PG + IG) / (Dcg + C),$$

where SG is the size of the location corresponding to the token, PG is the population of the location corresponding to the token, IG is the popularity index of the location corresponding to the tokens, Dcg is the distance from the vehicle location to the location corresponding to the token, and C is a predetermined constant.

11. The method of claim 1, further comprising:

comparing input speech with the tokens;

generating confidence scores corresponding to the tokens based upon the comparison; and

modifying the confidence scores based upon the weights associated with the tokens.

12. The method of claim 11, wherein modifying the confidence scores comprises multiplying the confidence scores by their associated weights.

13. A method of speech recognition, the method comprising:

receiving tokens in grammar and weights associated with the tokens, the weights being derived by information on a location and geographical information corresponding to the tokens;

comparing input speech with the received tokens;

generating confidence scores corresponding to the tokens based upon the comparison; and

modifying the confidence scores based upon the weights associated with the tokens.

14. The method of claim 13, wherein modifying the confidence scores comprises multiplying the confidence scores by their associated weights.

15. A speech recognition system for use in a vehicle navigation system, the speech recognition system comprising:

a grammar database storing grammars including tokens corresponding to parts of addresses;

a geographical information database storing geographical information corresponding to the tokens; and

a grammar generator selecting one or more of the tokens and assigning weights to the selected tokens, the weights being determined based upon the geographical information.

16. The speech recognition system of claim 15, wherein the geographical information includes sizes of locations corresponding to the tokens and each of the weights associated with each token is affected by the location corresponding to each token.

17. The speech recognition system of claim 15, wherein the geographical information includes populations of locations corresponding to the tokens and each of the weights associated with each token is affected by the population of the location corresponding to each token.

18. The speech recognition system of claim 15, wherein the geographical information includes popularity of locations corresponding to the tokens and each of the weights associated with each token is affected by the popularity of the location corresponding to each token.

19. The speech recognition system of claim 15, wherein the weights are further determined based upon the location of a vehicle for which the vehicle navigation system is used.

20. The speech recognition system of claim 19, wherein the geographical information includes distances between the vehicle location and the locations

corresponding to the tokens and each of the weights associated with each token is affected by the corresponding distances.

21. The speech recognition system of claim 19, wherein the geographical information includes distances between the vehicle location and locations corresponding to the tokens and the size of the locations corresponding to the tokens, and the weight (W) assigned to each of the token is calculated by:

$$W = SG / (Dcg + C),$$

where SG is the size of the location corresponding to the token, Dcg is the distance from the vehicle location to the location corresponding to the token, and C is a predetermined constant larger than zero.

22. The speech recognition system of claim 19, wherein the geographical information includes distances between the vehicle location and locations corresponding to the tokens and the population of the locations corresponding to the tokens, and the weight (W) assigned to each of the tokens is calculated by:

$$W = PG / (Dcg + C),$$

where PG is the population of the location corresponding to the token, Dcg is the distance from the vehicle location to the location corresponding to the token, and C is a predetermined constant larger than zero.

23. The speech recognition system of claim 19, wherein the geographical information includes distances between the vehicle location and locations corresponding to the tokens and the size and population of the locations corresponding to the tokens, and the weight (W) assigned to each of the tokens is calculated by:

$$W = (SG + PG) / (Dcg + C),$$

where SG is the size of the location corresponding to the token, PG is the population of the location corresponding to the token, Dcg is the distance from the vehicle location to the location corresponding to the token, and C is a predetermined constant larger than zero.

24. The speech recognition system of claim 19, wherein the geographical information includes distances between the vehicle location and locations corresponding to the tokens and the size, population, and the popularity indices of the locations corresponding to the tokens, and the weight (W) assigned to each of the tokens is calculated by:

$$W = (SG + PG + IG) / (Dcg + C),$$

where SG is the size of the location corresponding to the token, PG is the population of the location corresponding to the token, IG is the popularity index of the location corresponding to the token, Dcg is the distance from the vehicle location to the location corresponding to the token, and C is a predetermined constant larger than zero.

25. The speech recognition system of claim 15, further comprising:

a speech recognition engine comparing input speech with the tokens and generating confidence scores corresponding to the tokens based upon comparison, the speech recognition engine modifying the confidence scores based upon the assigned weights.

26. The speech recognition system of claim 25, wherein the speech recognition engine modifies the confidence scores by multiplying the confidence scores with the assigned weights.

27. A computer program product stored on a computer readable medium and adapted to perform a method of providing weighted grammar for speech recognition in a vehicle navigation system, the method comprising:

receiving tokens in grammar for speech recognition;

receiving geographical information corresponding to the tokens; and

calculating weights corresponding the tokens based upon the geographical information.

28. The computer program product of claim 27, the method further comprising:

receiving location information indicating the location of a vehicle for which the vehicle navigation system is used, the weights being calculated based upon the location information as well as the geographical information.

29. A computer program product stored on a computer readable medium and adapted to perform a method of speech recognition in a vehicle navigation system, the method comprising:

receiving tokens in grammar and weights associated with the tokens, the weights being derived based upon geographical information corresponding to the tokens;

comparing input speech with the tokens;

generating confidence scores corresponding to the tokens based upon the comparison; and

modifying the confidence scores based upon the received weights.

30. The computer program product of claim 29, wherein the weights are derived based upon the location of a vehicle for which the vehicle navigation system is used as well as the geographical information.

31. A speech recognition system for use in a vehicle navigation system, the speech recognition system comprising:

a geographical information database storing geographical information;

a grammar generator assigning weights to tokens in a grammar, the tokens corresponding to a part of an address and the weights being determined based upon the geographical information corresponding to the tokens; and

a grammar database storing the grammar including the tokens and the assigned weights.

32. The speech recognition system of claim 31, further comprising:

a grammar selector for selecting part of the tokens and the associated weights stored in the grammar database, based upon a location of a vehicle.